

## **Vasculoprotective Effects of Vildagliptin: Focus on Atherogenesis**

*Michał Wiciński, et.al, Int J Mol Sci. 2020 Apr; 21(7): 2275.*

- Anti-sclerotic and vasculoprotective effects of vildagliptin reaching beyond glycemic control have been documented in various studies.
- Vildagliptin is able to limit inflammation by suppression of the NF- $\kappa$ B (nuclear factor kappa-light-chain-enhancer of activated B cells) signaling pathway and pro-inflammatory agents such as TNF- $\alpha$  (tumor necrosis factor  $\alpha$ ), IL-1 $\beta$  (Interleukin-1 $\beta$ ), and IL-8 (Interleukin 8).
- Vildagliptin reduces vascular stiffness via elevation of nitric oxide synthesis, improves vascular relaxation, and results in reduction in both systolic and diastolic blood pressure.
- Treatment with vildagliptin lowers the level of PAI-1 (Plasminogen activating inhibitor-1) presenting possible antithrombotic effect.

**By affecting the endothelium, inflammation, & lipid metabolism, vildagliptin may affect the development of atherosclerosis at its various stages.**